

NON-MORTALITY SPECIAL INCIDENTS

**Semi-Annual Report Submitted to the
California Department of Developmental Services**

JULY – DECEMBER 2009



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INTRODUCTION AND BACKGROUND

This report summarizes rates of special incidents between July and December 2009 for DDS consumers living in the community. It compares rates across recent years and identifies months in which rates were unusually high.

DDS can use this report to track special incident rates over time and monitor the effectiveness of risk management activities.

As one element of risk management and quality assurance, the California Department of Developmental Services (DDS) and California's network of regional centers monitor the occurrence of adverse events, captured through Special Incident Reports (SIRs), to identify trends and develop strategies to prevent and mitigate risks. As required by Title 17, Section 54327 of the California Code of Regulations, vendors and long-term health care facilities report occurrences of suspected abuse, suspected neglect, injury requiring medical attention, unplanned hospitalization, and missing persons, if they occur when a consumer is receiving services funded by a regional center (under vendored care). In addition, *any occurrence* of consumer mortality or victim of crime must be reported whether or not it occurred while they were under vendored care.

This report, one of a series of semi-annual reports on non-mortality special incidents, summarizes incident rates for DDS consumers between July and December 2009. The report has two main goals:

1. To update time trends in special incident rates from our earlier reports to include data through December 2009.
2. To identify specific incident categories that were higher than their historical trend, and identify specific months in which incident rates were unusually high. DDS can use this report to track special incident rates over time.

The statistics and graphs presented in this report were constructed using data from the SIR System from 2002 through 2009. These data are augmented with three additional data sources maintained by DDS:

- The Client Master File (CMF)
- The Client Development Evaluation Report (CDER)
- The Early Start Report (ESR)

This report presents findings based on statistical analyses that measure a consumer's risk of experiencing a special incident. Further details are found at the bottom of each subsequent page.

The average monthly incident rate for this period was very similar to last period and last year.

**Table 1: All Non-Mortality Special Incidents, Compared to Previous Periods
DDS Consumers, July – December 2009**

	Change From:	
	Jul-Dec 2008 (last year)	Jan-Jun 2009 (last period)
Raw Rate	-1.9% ↓	No Change
Case-Mix Adjusted Rate	+1.7% ↑	+1.5% ↑

Key Findings:

- The case-mix adjusted non-mortality incident rate was 0.503% this period, compared to 0.496% last period (Jan-Jun 2009) and 0.495% the same period last year (Jul-Dec 2008). These figures are not shown in the table above.
- Case-mix adjusted incident rates rose 1.7% compared to last year (Jul-Dec 2008) and 1.5% compared to the last period (Jan-Jun 2009). Raw rates decreased compared to last year and did not change compared to the last period.

More About These Data

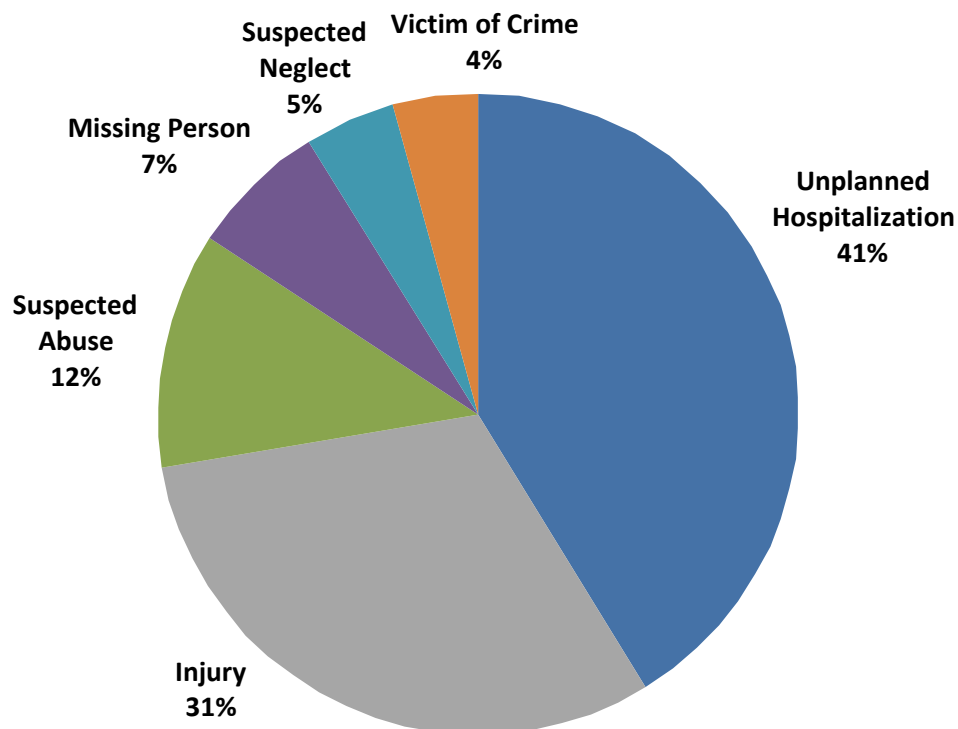
This report summarizes incident rates for consumers living in the community. This includes consumers receiving services from a regional center not residing in a Developmental Center or state-operated facility. Special incidents refer to seven categories of adverse events defined by Title 17, Section 54327 of the California Code of Regulations. They include: missing person, suspected abuse, suspected neglect, serious injury, unplanned hospitalization, victim of crime, and death.

The *Raw Rate* is defined as the percentage of statewide consumers who experience one or more special incidents in an average month. It is calculated by dividing the *total number of consumers with one or more incidents* by the *total consumer population*. Note that this rate does not tell you how many SIRs there were per person in a given month.

The *Case-Mix Adjusted Rate* accounts for the differences in the characteristics of the consumer population over time. When comparing statewide SIR rates to those of previous periods, it is important to distinguish trends affected by changes in population from trends associated with risk management practices. If, for example, there were an influx of medically fragile consumers, we would expect rates of unplanned hospitalization incidents to increase, even if the effectiveness of risk management practices did not change. Case-mix adjustment accounts for changes such as these so that rates can be reasonably compared to previous periods.

Unplanned hospitalization and injury incidents account for almost three quarters of reported non-mortality incidents.

Figure 1: Breakdown of Non-Mortality Special Incidents by Type
DDS Consumers, July – December 2009



Key Findings:

- During the most recent six-month period, unplanned hospitalizations were the most commonly reported non-mortality special incident type, accounting for 41% of all reported incidents. Injury incidents followed closely behind at 31%.
- The least common types of reported incidents were suspected neglect and victim of crime, which combined accounted for less than 10% of all special incidents.

More About These Data

The percentages shown above are based on raw counts of reported special incidents and are not case-mix adjusted.

Unplanned hospitalization rates increased compared to last period and year, while most other incident types decreased.

**Table 2: Percent Change in Average Monthly Rates of Non-Mortality Special Incidents
DDS Consumers, July – December 2009**

	Change From:	
	Jul-Dec 2008 (last year)	Jan-Jun 2009 (last period)
Unplanned Hospitalization	+9% ↑	+4% ↑
Injury	-3% ↓	-1% ↓
Suspected Abuse	+1% ↑	+1% ↑
Suspected Neglect	-24% ↓	-1% ↓
Missing Person	-8% ↓	No Change
Victim of Crime	-24% ↓	-1% ↓

Key Findings:

- Reported rates of unplanned hospitalization increased 4% and 9% compared to last period and to last year. These differences are not statistically significant. No follow-up activities are planned.
- Rates for all other incident types either decreased or stayed near their levels from last period and year.

Follow-Up Activities:

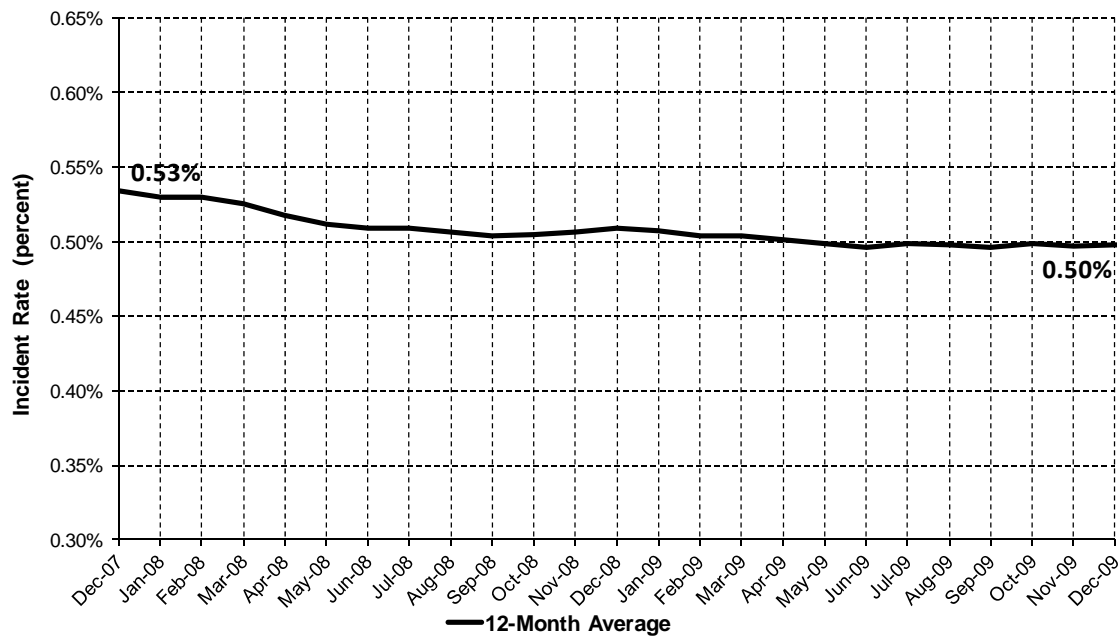
- *Reporting Back* – Regional centers with quarterly spikes in individual incident types are required to report back to DDS any discovery and remediation activities related to these spikes. Last period, there were quarterly spikes at seven regional centers. See Page 11 for further details.
- *Additional Data Analysis* – Acumen is conducting data analyses for several regional centers whose special incident data indicate long-term increases over the past few years. See Page 13 for further details.

More About These Data

These figures are calculated using case-mix adjustment, described on page 2. Rates for specific incident types are calculated as the share of consumers experiencing an incident of that type in a given month.

The statewide trend of non-mortality special incidents has decreased slightly over the past two years.

**Figure 2: Non-Mortality Special Incidents, Case-Mix Adjusted Statewide Trend
DDS Consumers, December 2007 – December 2009**



Key Findings:

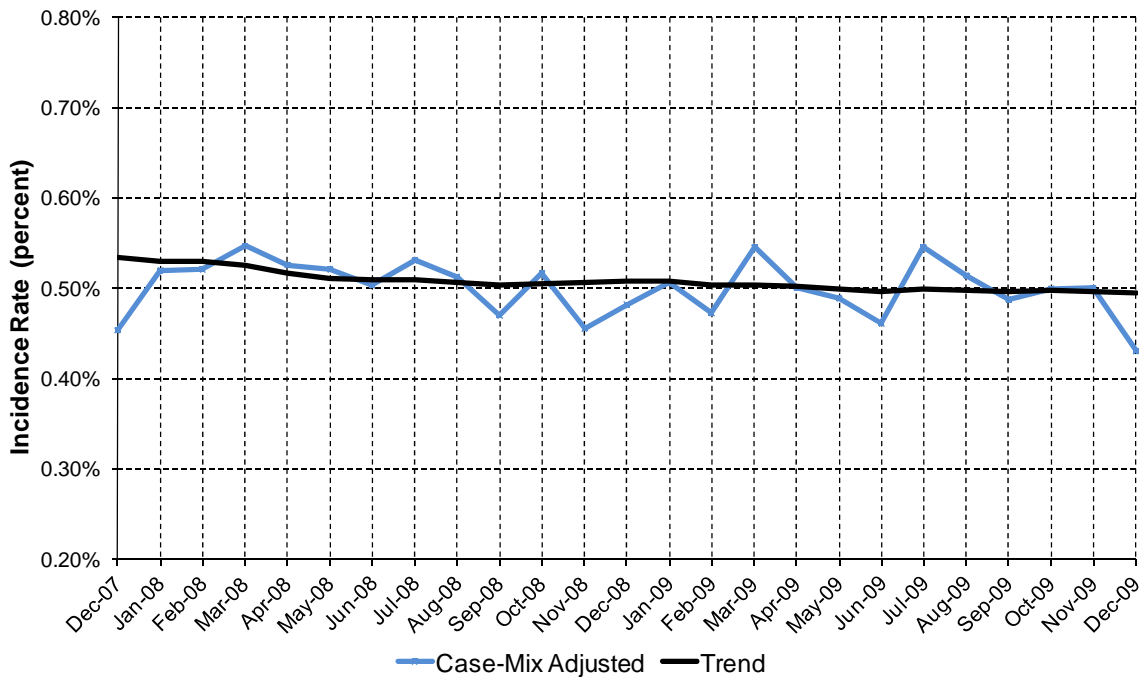
- Although the trend in statewide non-mortality incident rates increased slightly compared to last period (see Page 2), the trend has decreased over the past two years, from 0.53% in December 2007 to 0.50% in December 2009.
- The trend in statewide non-mortality incident rates has remained fairly constant through the most recent six-month period (Jul-Dec 2009).

More About These Data

The monthly incident rate is defined as the share of consumers experiencing one or more non-mortality incidents in a given month. The trend line in Figure 2 represents a 12-month moving average of the monthly incident rate. It is calculated by taking an average of statewide non-mortality special incident rates from the most recent 12-month period. This trend also accounts for the differences in the characteristics of the consumer population over time. This approach, called “case-mix adjustment,” controls for changes in consumer characteristics and removes these effects from the calculated trend.

Similar to previous years, non-mortality incident rates rose in July before declining below the 12-month average.

**Figure 3: Non-Mortality Special Incidents, Case-Mix Adjusted Monthly Rates
DDS Consumers, December 2007 – December 2009**



Key Findings:

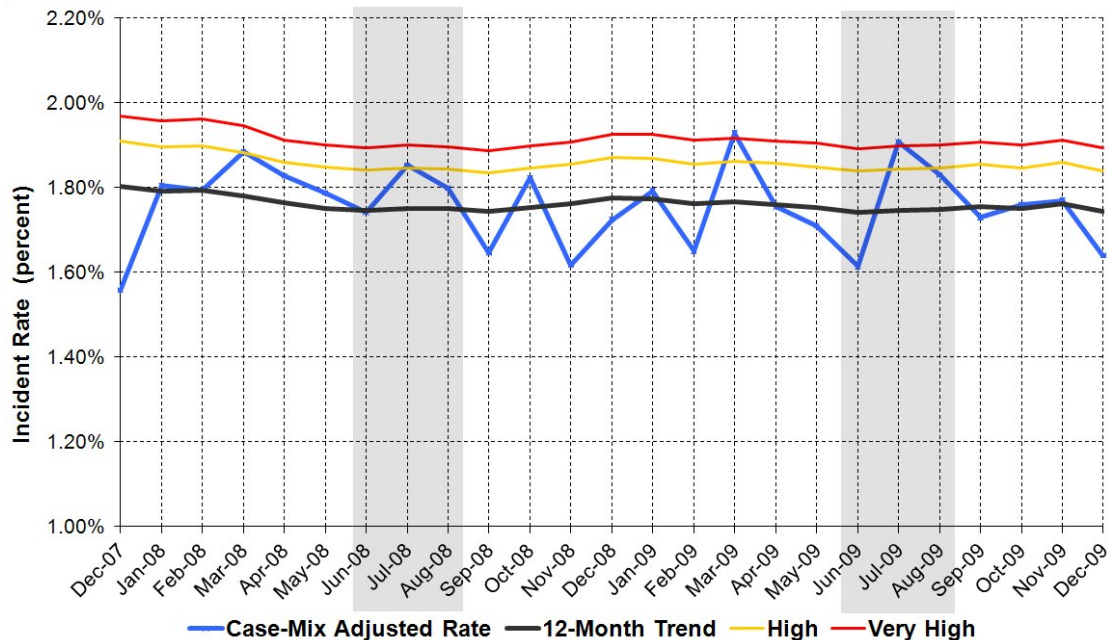
- The monthly non-mortality special incident rate (blue line) rose above the 12-month average in July and August 2009. The rate was particularly high in July.
- After September 2009, the monthly incident rate declined to near or below the 12-month average.
- Explanations and follow-up activities regarding the July 2009 spike are discussed in the following pages.

More About These Data

The black line in the graph above is the same line shown in Figure 2, representing the 12-month trend. The blue line represents the percentage of consumers statewide who experience one or more special incidents in a month. Both rates are case-mix adjusted, meaning that the trends account for changes in consumer characteristics over time. See page 2 for more details.

In July, the statewide non-mortality incident rate for out-of-home consumers crossed the "very high" threshold.

**Figure 4: Non-Mortality Special Incidents, Case-Mix Adjusted Monthly Rates
DDS Out-of-Home Consumers, December 2007 – December 2009**



Key Findings:

- Non-mortality incident rates for the out-of-home population spiked above the "very high" threshold in July 2009.
- Non-mortality special incident rates also spiked in July 2008, as shown in Figure 4 above.

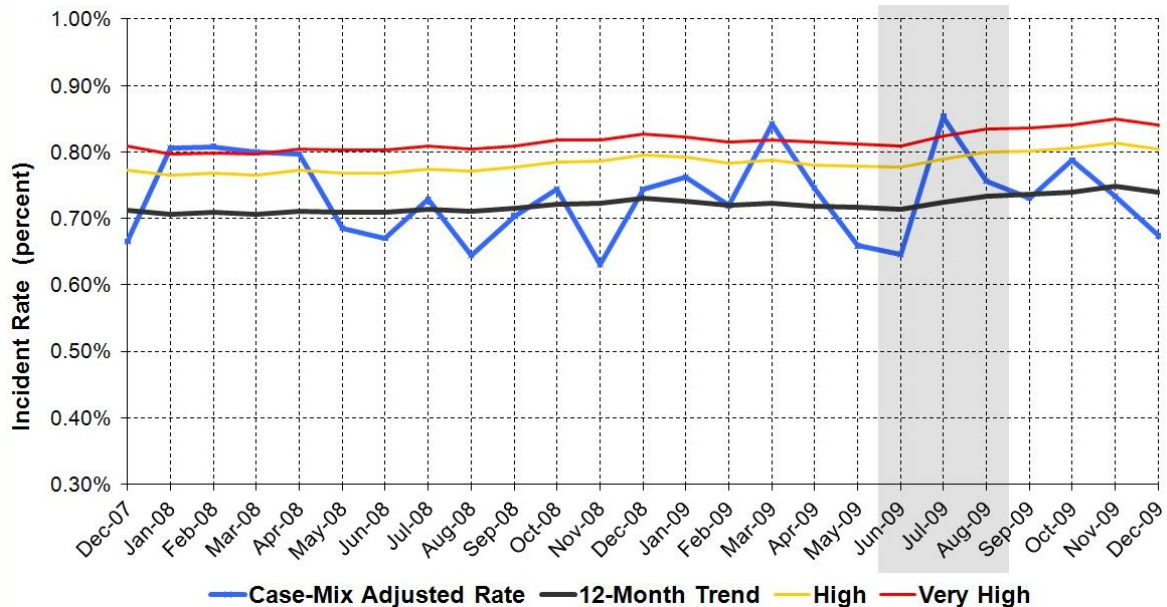
More About These Data

Out-of-home Consumers are defined as individuals residing in community settings such as licensed residential services, Family Home Agency (FHA), Supported Living Services (SLS), or Independent Living Services (ILS).

This graph identifies non-mortality incident rates that are unusually high, and therefore classified as a "spike." For example, a rate that rises above the yellow line in a given month probably did *not* occur due to chance, since this will occur randomly in only one month out of twenty (less than 5% of the time). A rate that rises above the red line in a given month will occur randomly less than 1% of the time. Rates above the red line, therefore, are very unlikely to be chance events and are classified as "spikes."

The July spike in non-mortality incident rates was driven by a spike in unplanned hospitalization incidents.

Figure 5: Unplanned Hospitalization Incidents, Case-Mix Adjusted Monthly Rates DDS Out-of-Home Consumers, December 2007 – December 2009



Key Findings:

- Hospitalization incidents, which account for the greatest share of non-mortality incidents, spiked in July 2009 for the out-of-home population.
- The July spike in hospitalizations was driven by seven regional centers: Inland, Frank D. Lanterman, North Bay, North Los Angeles County, San Andreas, and San Gabriel/Pomona.
- Unlike the statewide rate of non-mortality special incidents, a similar spike in hospitalizations did not occur in July 2008.

Follow-Up Activities:

- Acumen followed up with the regional centers listed above to gather additional data, finding no unusual trends. Acumen also investigated which hospitalization types drove the July spike (see next page).

More About These Data


The black line in the graph above represents the 12-month trend in out-of-home hospitalization incidents. The blue line represents the percentage of consumers statewide who experience one or more hospitalization incidents in a month. Both rates are case-mix adjusted, meaning that the trends account for changes in consumer characteristics over time. See page 2 for more details.

The July 2009 spike in hospitalization was driven by two subtypes: internal infection and cardiac condition.

**Table 3: Hospitalization Subtypes
DDS Out-of-Home Consumers, July 2009**

Hospitalization Subtype	Type of Spike	Regional Center Spikes
Internal Infection	High	Inland, San Andreas, San Gabriel/Pomona
Cardiac Condition	High	Far Northern, Frank D. Lanterman, Valley Mountain, Westside

Key Findings:

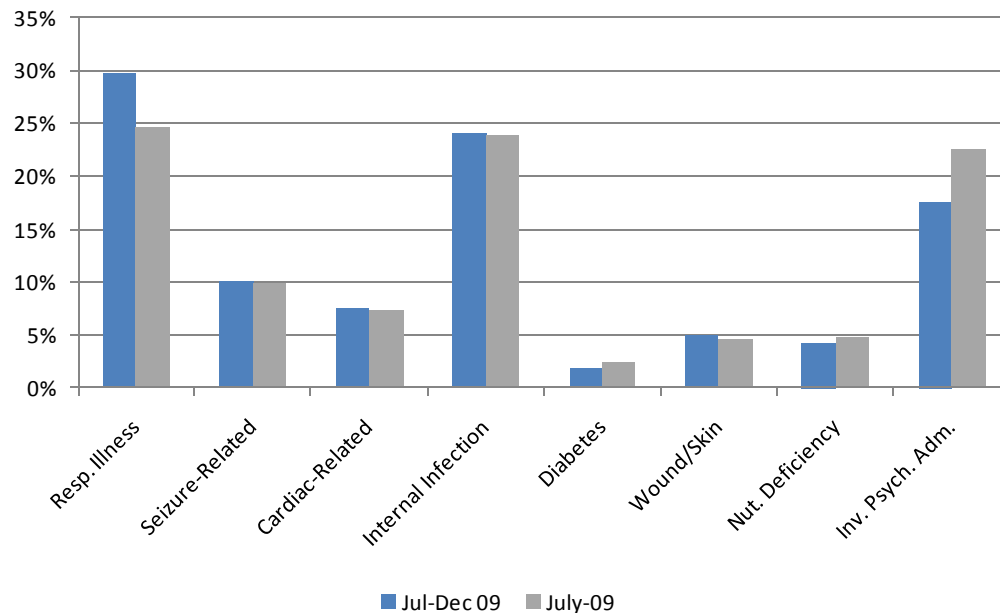
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- Two hospitalization subtypes had spikes at the statewide level in July 2009: internal infection and cardiac condition.
 - The spike in internal infection was driven by three regional centers: Inland, San Andreas, and San Gabriel/Pomona.
 - The spike in hospitalization due to cardiac condition was driven by four regional centers: Far Northern, Frank D. Lanterman, Valley Mountain, and Westside.

Follow-Up Activities:

- Acumen contacted each of the regional centers listed above to collect additional data on the incidents associated with the July spike. None of the regional centers we contacted reported unusual trends or patterns beyond the specific hospitalization sub-type.
- Acumen is reviewing the incident reports associated with these spikes, breaking down the incidents by consumer age, diagnosis, and residence type. Acumen will summarize the findings in the next semi-annual report.

Involuntary psychiatric admissions represented a greater share of hospitalizations in July than in the rest of the period.

**Figure 6: Share of Unplanned Hospitalization Incidents by Type
DDS Consumers, Jul-Dec 2009 compared to July 2009**



Key Findings:

- There was a higher percentage of involuntary psychiatric admission and a lower percentage of respiratory illness in July compared to the average distribution of hospitalization types over the entire six-month period.
- Respiratory illness, internal infection, and involuntary psychiatric admission accounted for the majority of hospitalization incidents both in July and across the six-month period.
- Three regional centers experienced a spike in involuntary psychiatric admission in July 2009: Inland, North Bay, and North Los Angeles County.

Follow-Up Activities:

- Acumen contacted those regional centers listed above to collect additional data on their psychiatric-related hospitalizations in July 2009. None of these regional centers reported any unusual trends.

More About These Data

The percentages shown above are based on raw counts of unplanned hospitalization incidents. Percentages may not add up to 100% due to rounding.

This chart is a breakdown of reportable categories of unplanned hospitalization. Note that not all hospitalization incidents are summarized above, since not all hospitalization incidents are reportable.

Regional centers experiencing spikes in special incident rates provide structured feedback describing follow-up.

Each quarter since September 2007, regional centers complete an online form that describes why any spikes occurred, what follow-up actions were taken, and whether they faced obstacles in implementing these follow-up activities. This information may be used to develop strategies on how to mitigate risk to consumers statewide.

In the most recent six-month period, seven regional centers had quarterly spikes: Far Northern, Harbor, North Bay, Orange County, San Gabriel/Pomona, South Central Los Angeles, and Tri-Counties. Their reporting back responses are summarized below:

Monitoring and Discovery

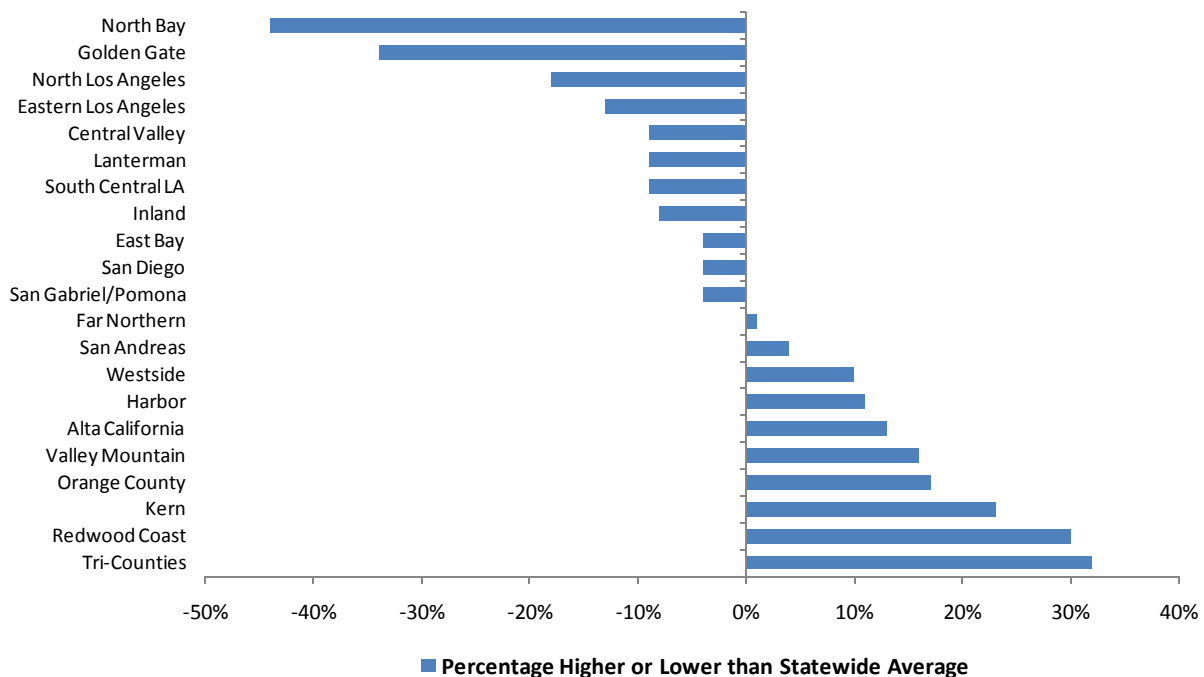
- Regional centers took the following actions to determine whether spikes in incident rates were isolated events or more systemic issues:
 - Reviewed specific special incident reports and individual charts.
 - Conducted or requested additional data analysis to get demographic information for the consumers/incidents that caused the spike.
 - Interviewed service coordinators to clarify any questions or inconsistencies regarding the charts and incident reports.
 - Implemented changes in regional center procedures and policies.

Remediation

- Of the spikes, two involved broader issues and indicated the need for specific remediation activities:
 - At San Gabriel/Pomona Regional Center, a spike in suspected neglect revealed a lack of training at certain facilities. In response, the regional center updated the training curriculum and increased the frequency of trainings at facilities where neglect was substantiated.
 - At North Bay Regional Center, spikes in hospitalization and neglect were traced to the regional center's hire of a new SIR coordinator who could enter the SIRs on a regular basis. Prior to this hiring, the regional center's rates had been artificially low, and the increase returned the regional center to historic rates of reported incidents.
- The most common follow-up actions were:
 - Conducted interviews with the service coordinator or other regional center staff (75%).
 - Conducted individual chart reviews (50%).
- None of the eight regional centers that reported back listed barriers to reducing future incidents.

Among the 21 regional centers, Tri-Counties and Redwood Coast had the highest non-mortality incident rates.

**Table 4: Non-Mortality Special Incident Rates by Regional Center Compared to State
December 2008 – December 2009**



Key Findings:

- In the last 12-months, North Bay and Golden Gate Regional Centers had the lowest reported non-mortality incident rates, at 44% and 34% below the statewide average, respectively.
- Tri-Counties and Redwood Coast Regional Centers had the highest non-mortality rates, at 32% and 30% above the statewide average, respectively.
- North Bay Regional Center's low rate is the result of several months without an active SIR coordinator, rather than a reflection of unusually low incident rates. See Page 11 for details.

Follow-Up Activities:

- Acumen is conducting additional analysis for several regional centers, including Kern and Tri-Counties, with statistically significant increases in non-mortality incident rates over time. These analyses will identify the underlying causes of the spike and propose appropriate remediation activities.


More About These Data

The percentages above are case-mix adjusted, meaning that they account for differences in the characteristics of the consumer population over time. See Page 3 for more details.

Further discovery regarding the July hospitalization spike is required before considering remediation activities.

Rates of hospitalization have shown statistically significant spikes twice in 2009: in March, as discussed in the previous semi-annual report, and again in July. Acumen has undertaken a set of monitoring, discovery and improvement activities associated with these spikes. A number of additional activities will also support regional centers in avoiding future incidents. We describe these below.

Monitoring and Discovery Activities:

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- *July 2009 Spike in Statewide Hospitalization Rates:* As discussed on Pages 8 and 9, this spike was concentrated within the internal infection and cardiac condition subtypes and driven by several regional centers with elevated rates. Regional centers that experienced these spikes were not able to find any systematic explanations or unusual trends. Acumen is pursuing additional analysis of these incidents and review of the incident reports. We will report findings in the next semi-annual report, as well as propose potential remediation activities as appropriate.
 - *March 2009 Spike in Statewide Hospitalization Rates:* In the previous semi-annual period (Jan-Jun 2009), there was a similar statewide spike in March hospitalization rates. Acumen followed up with the regional centers driving the spike, also finding no unusual trends. Acumen also conducted additional data review to determine whether the spike was associated with the H1N1 flu virus. We found that that neither the timing nor the rates of hospitalization by subtype were consistent with H1N1 as a primary reason for the spike. Since that time, Acumen has developed a series of diagnosis-specific healthcare checklists, some of which address common causes of unplanned hospitalization. See below for more details.
 - *Long-term Increases in Incident Rates:* Acumen is conducting analyses for several regional centers whose special incident data indicate long-term increases over the past few years, including Kern, Tri-Counties, Central Valley, and Golden Gate Regional Centers. Several of these analyses have honed in on medication errors as one important driver of higher rates. We are currently completing a detailed review of the associated SIRs to determine common causes for these errors (including potential reporting differences). We will use the results of this review to determine appropriate follow-up activities, such as a checklist to avoid medication errors as an addition to our existing set of healthcare checklists. We will summarize the first-round results in the next semi-annual report.

System Improvement Activities:

- *DDS SafetyNet Website:* Acumen maintains the DDS SafetyNet, a website promoting health and safety for individuals with developmental disabilities. SafetyNet materials respond directly to trends in special incident rates to help manage risk among the consumer population. For example, recent articles promoted routine check-ups with doctors and vaccinations, responding to an increase in respiratory illness incidents driving the March 2009 spike in statewide hospitalization rates. (See Jan-Jun 2009 Semi-Annual Report on Non-Mortality, Page 9.) The DDS SafetyNet website also recently addressed numerous other health and safety topics, including healthy eating, exercise, and avoiding common illnesses.
- *DDS Mental Health Services Act (MHSA):* The last semi-annual report (Jan-Jun 2009) discussed DDS' funding for a Mental Health Consultant to improve communications between regional centers and county mental health agencies, identify gaps and barriers in service delivery, and explore innovative and collaborative services for consumers with a dual diagnosis. Since that time, DDS received MHSA funds for FY 08-09 through FY 10-11. DDS also awarded MHSA funding to six regional centers to develop innovative programs focusing on early intervention and treatment for children and families impacted by mental health issues. In addition, the MHSA project helped fund two new forensic residential treatment programs, three Regional Planning Summits, and a best practices training on medication, treatment, and monitoring of individuals with a dual diagnosis.

Planned Activities for the Coming Year:

- *Reporting Back by Regional Centers:* DDS and Acumen will continue to collect information from regional centers on how they respond to increases in their special incident rates. This information is summarized and reported to DDS on a quarterly basis.
- *DDS SafetyNet Website:* In May, DDS and Acumen launched the new SafetyNet website, which significantly improved the online user experience for both consumers and supporters (direct service providers and family members). The updated website includes accessibility features to assist users of screen readers and presents content in a cleaner, friendlier manner. Starting the summer of 2010, DDS and Acumen began collaborating with a new SafetyNet Advisory Committee, comprised of direct service providers, clinicians, and consumers, to brainstorm topics and refine articles before publication.
- *Support for Regional Centers with Monthly Spikes:* Acumen has begun following up with every regional center experiencing a very high spike in monthly special incident rates. For each spike, we will ask the regional center whether they are aware of the spike and whether they have planned follow-up activities in response. Acumen will also offer technical assistance on follow-up activities, enabling more rapid response to any potential issues.